#15/E

SEQUENCE LISTING

<110> O'Donnell, Michael

<120> DNA POLYMERASE III HOLOENZYME

<130> 19603/10214

<140> 08/828,323
<141> 1997-03-28

T.0900

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<170> PatentIn Ver. 2.0

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Glu Ser Gln Asp Ala Val Arg Gln Val Ala Ala Ala Gln Gly Phe Glu
35 40 45

Glu His His Thr Phe Ser Ile Asp Pro Asn Thr Asp Trp Asn Ala Ile
50 55 60

Phe Ser Leu Cys Gln Ala Met Ser Leu Phe Ala Ser Arg Gln Thr Leu
65 70 75 80

Leu Leu Leu Leu Pro Glu Asn Gly Pro Asn Ala Ala Ile Asn Glu Gln
85 90 95

Leu Leu Thr Leu Thr Gly Leu Leu His Asp Asp Leu Leu Leu Ile Val
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E

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Ala Leu Ala Asn Arg Ser Val Gln Val Thr Cys Gln Thr Pro Glu Gln
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Glu Leu Asp Asp Ala Ala Asn Gln Val Leu Cys Tyr Cys Tyr Glu Gly
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Asn Leu Leu Asn Leu Ala Gln Ala Leu Glu Arg Leu Ser Leu Leu Trp
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Pro Asp Gly Lys Leu Thr Leu Pro Arg Val Glu Gln Ala Val Asn Asp
        195                 200                 205

Ala Ala His Phe Thr Pro Phe His Trp Val Asp Ala Leu Leu Met Gly
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Lys Ser Lys Arg Ala Leu His Ile Leu Gln Gln Leu Arg Leu Gly Gly
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Ser Glu Pro Val Ile Leu Leu Arg Thr Leu Gln Arg Glu Leu Leu Leu
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Leu Val Asn Leu Lys Arg Gln Ser Ala His Thr Pro Leu Arg Ala Leu
            260                 265                 270

Phe Asp Lys His Arg Val Trp Gln Asn Arg Arg Gly Met Met Gly Glu
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<213> Escherichia coli

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Pro Gly Met Gly Asp Asp Ala Leu Ile Tyr Ala Leu Ser Arg Tyr Leu
         35                  40                  45

Leu Cys Gln Gln Pro Gln Gly His Lys Ser Cys Gly His Cys Arg Gly
     50                  55                  60

Cys Gln Leu Met Gln Ala Gly Thr His Pro Asp Tyr Tyr Thr Leu Ala
 65                  70                  75                  80

Pro Glu Lys Gly Lys Asn Thr Leu Gly Val Asp Ala Val Arg Glu Val
                 85                  90                  95

Thr Glu Lys Leu Asn Glu His Ala Arg Leu Gly Gly Ala Lys Val Val
            100                 105                 110

Trp Val Thr Asp Ala Ala Leu Leu Thr Asp Ala Ala Ala Asn Ala Leu
        115                 120                 125

Leu Lys Thr Leu Glu Glu Pro Pro Ala Glu Thr Trp Phe Phe Leu Ala
    130                 135                 140

Thr Arg Glu Pro Glu Arg Leu Leu Ala Thr Leu Arg Ser Arg Cys Arg
145                 150                 155                 160

Leu His Tyr Leu Ala Pro Pro Pro Glu Gln Tyr Ala Val Thr Trp Leu
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Ser Arg Glu Val Thr Met Ser Gln Asp Ala Leu Leu Ala Ala Leu Arg
            180                 185                 190

Leu Ser Ala Gly Ser Pro Gly Ala Ala Leu Ala Leu Phe Gln Gly Asp
        195                 200                 205

Asn Trp Gln Ala Arg Glu Thr Leu Cys Gln Ala Leu Ala Tyr Ser Val
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Pro Ser Gly Asp Trp Tyr Ser Leu Leu Ala Ala Leu Asn His Glu Gln
225                 230                 235                 240
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Ala Pro Ala Arg Leu His Trp Leu Ala Thr Leu Leu Met Asp Ala Leu
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Lys Arg His His Gly Ala Ala Gln Val Thr Asn Val Asp Val Pro Gly
260 265 270

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275 280 285

Ile Leu Gly Asp Val Cys His Ile Arg Glu Gln Leu Met Ser Val Thr
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His Tyr Leu Gln Pro Gly Val Val Leu Pro Val Pro His Leu
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aatgagcacg cacgcttagg tggtgcgaaa gtcgtttggg taaccgatgc tgccttacta 360
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95

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gcactaccgt gacccactgg gtgaaggagt tggacgc 157

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1 5 10

<210> 18
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Ala Leu Leu Lys
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<210> 19
<211> 25
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Glu Pro Glu Arg Leu Leu Ala Thr Leu
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20 25 30

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Thr Cys Ala Gly Gly Gly Thr Gly Ala Thr Ala Ala Cys Thr Gly Gly
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Cys Ala Gly Gly Cys Thr
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<210> 25
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<400> 25
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<210> 26
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20 25 30

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Met Pro Val Ile Ala Glu Ala Val Glu Arg Glu Gln Pro Glu His Leu
35 40 45

Arg Ser Trp Phe Arg Glu Arg Leu Ile Ala His Arg Leu Ala Ser Val
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Asn Leu Ser Arg Leu Pro Tyr Glu Pro Lys Leu Lys
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20 25 30

Met Pro Val Ile Ala Glu Ala Val
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<210> 37
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20 25 30

Ile Pro Ala His Val Arg Leu Val Met Val Ala Asn Asp Leu Pro Ala
35 40 45

Leu Thr Asp Pro Leu Val Ser Asp Val Leu Arg Ala Leu Thr Val Ser
50 55 60

Pro Asp Gln Val Leu Gln Leu Thr Pro Glu Lys Ile Ala Met Leu Pro
65 70 75 80

Gln Gly Ser His Cys Asn Ser Trp Arg Leu Gly Thr Asp Glu Pro Leu
85 90 95

Ser Leu Glu Gly Ala Gln Val Ala Ser Pro Ala Leu Thr Asp Leu Arg
100 105 110

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<213> Escherichia coli

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atggtggcaa acgatcttcc cgccctgact gatcctttag tgagcgatgt tctgcgcgca 180
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<210> 44
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<210> 47
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<400> 48
ccccacatat gaaaaacgcg acgttctacc 30

<210> 49

<211> 28
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<400> 49
acccggatcc aaactgccgg tgacattc 28

<210> 50
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<212> DNA
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ggcgctgcgg tgtatacctg atgcgtattt aaatccacca caagaagccc catttt 175

<210> 52
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<212> DNA
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<400> 52
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<212> PRT
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<400> 53
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E

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            20                  25                  30

Trp Arg Ser Gly Lys Arg Val Leu Ile Ala Cys Glu Asp Glu Lys Gln
        35                  40                  45

Ala Tyr Arg Leu Asp Glu Ala Leu Trp Ala Arg Pro Ala Glu Ser Phe
    50                  55                  60

Val Pro His Asn Leu Ala Gly Glu Gly Pro Arg Gly Gly Ala Pro Val
65                  70                  75                  80

Glu Ile Ala Trp Pro Gln Lys Arg Ser Ser Ser Arg Arg Asp Ile Leu
                85                  90                  95

Ile Ser Leu Arg Thr Ser Phe Ala Asp Phe Ala Thr Ala Phe Thr Glu
            100                 105                 110

Val Val Asp Phe Val Pro Tyr Glu Asp Ser Leu Lys Gln Leu Ala Arg
        115                 120                 125

Glu Arg Tyr Lys Ala Tyr Arg Val Ala Gly Phe Asn Leu Asn Thr Ala
    130                 135                 140

Thr Trp Lys
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<210> 54
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<400> 54

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 1               5                  10                  15

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Asn Leu Ala Gly Glu
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<210> 57
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<400> 57
Gly Gly Ala Pro Val Glu Ile Ala Trp Pro
1 5 10

<210> 58
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<400> 58
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<210> 59
<211> 30
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